

Claims

1. A method for reducing or preventing inflammation arising from normal dose photodynamic therapy (PDT), which method comprises  
exposing a tissue area in a subject, that overlaps with an area that has been  
5 treated with normal dose PDT treatment, to low dose light having a wavelength absorbed by the photosensitizing agent used in said normal dose PDT treatment for a time sufficient to reduce or prevent inflammation arising from said normal dose PDT treatment.
- 10 2. The method of claim 1 wherein said subject is human.
3. The method of claim 1, wherein the tissue area is an ocular tissue.
- 15 4. The method of claim 3, wherein the ocular tissue contains unwanted neovasculture.
5. The method of claim 4, wherein the unwanted neovasculture is choroidal neovasculture.
- 20 6. The method of claim 2, wherein the subject has been diagnosed or is afflicted with age-related macular degeneration (AMD).
- 25 7. The method of claim 2, wherein the subject has been diagnosed or is afflicted with a condition selected from macular degeneration, ocular histoplasmosis syndrome, pathologic myopia, diabetic macular edema, diabetic retinopathy, neovascular glasucoma, corneal neovascularizaton and inflammatory diseases.
8. The method of claim 1, wherein the photosensitizing agent is selected from a texaphyrin, a chlorin, a phthalocyanine, a purpurin, a bacteriochlorin, a

porphyrina, a porphyrin derivative, a green porphyrin, a phthalocyanine and 5-aminolevulinic acid (ALA).

5           9.     The method of claim 8, wherein the photosensitizing agent is a monohydrobenzoporphyrin compound.

          10.    The method of claim 9, wherein the photosensitizing agent is BPD-MA or verteporfin.

10           11.   The method of claim 1, wherein the photosensitizing agent is applied topically to the subject.

          12.    The method of claim 1, wherein the photosensitizing agent is administered systemically to the subject.

15           13.    The method of claim 1, wherein the tissue area is exposed to the low dose light immediately after the subject has been treated with normal dose PDT treatment.

20           14.    The method of claim 1, wherein the area exposed to the low dose light envelops the area previously treated with normal dose PDT.

          15.    The method of claim 1, wherein the low dose light is a dosage from about 1 J/cm<sup>2</sup> to about 10 J/cm<sup>2</sup>.

25           16.    The method of claim 15, wherein the dosage of the low dose light is about 15 J/cm<sup>2</sup>.

          17.    A method for reducing or preventing inflammation arising from normal dose photodynamic therapy (PDT), which method comprises

exposing a tissue area in a subject, adjacent to an area that has been treated with normal dose PDT treatment, to low dose light having a wavelength absorbed by the photosensitizing agent used in said normal dose PDT treatment for a time sufficient to reduce or prevent inflammation arising from said normal dose PDT treatment.

5  
18. The method of claim 17, wherein the area exposed to the low dose light is concentric with the area previously treated with normal dose PDT.

10  
19. The method of claim 1, wherein the low dose light irradiation lasts about 5 seconds.

20. The method of claim 1, wherein the wavelength of the low dose light is from about 350 nm to about 800 nm.

15  
21. The method of claim 20, wherein the wavelength of the low dose light is about 689 nm.

22. The method of claim 1, wherein the inflammation is monitored by photography or immunohistochemistry.

20  
23. The method of claim 22, wherein the photography is fundus photography.

24. The method of claim 23, wherein the tissue area is an ocular tissue and an inflammation marker is used to monitor the inflammation by fundus photography, wherein said inflammation marker is selected from retinal whitening, localized retinal elevation, depigmented treatment area with hyperpigmentation, early hypofluorescence in the treatment area, hyperfluorescence at the border, late pooling, central hypofluorescence and blocked fluorescence and window defects.

25  
30  
25. The method of claim 24, wherein the tissue area is an ocular tissue and an inflammation marker is used to monitor the inflammation by immunohistochemistry,

wherein said inflammation marker is selected from CD4, CD8, CD31, macrophage and MHC II.

5           26.     The method of claim 1, wherein the inflammation is monitored by scanning laser ophthalmoscopy (SLO) or optical coherence tomography (OTC).

          27.     The method of claim 1, further comprising a step of administering an immunosuppressive agent to the subject before the tissue area is exposed to low dose light.

10           28.     The method of claim 1, further comprising a step of administering an antiangiogenic or a neuroprotective agent to the subject before the tissue area is exposed to low dose light.

15           29.     The method of claim 1, wherein the photosensitizing agent is a BPD B-ring derivative.

          30.     The method of claim 29, wherein the BPD B-ring derivative is a hydrophilic or a lipophilic BPD B-ring analog.

20           31 33.    A method of treating unwanted neovasculture of an eye, which method comprises:   a)     administering to a subject in need of treatment for unwanted neovasculture an amount of photosensitizer sufficient to permit an effective amount to localize in said neovaculture;

25                   b)     permitting sufficient time to elapse to allow an effective amount of said photosensitizer to localize in said neovasculture;

                  c)     providing a first dosage of irradiation to a treatment area of the subject's eye containing said neovasculture with light having a wavelength that is absorbed by said photosensitizer for a sufficient time and at a sufficient intensity to occlude said  
30                   neovasculture; and

d) providing a second and lower dosage of irradiation to said treatment area and/or said treatment area and an additional area adjacent to said treatment area with light having a wavelength absorbed by the photosensitizer for sufficient time to reduce or prevent the effects of inflammation arising from said first dosage of irradiation.

5

34. The method of claim 33, wherein the unwanted neovascularity is in the choroid of the subject's eye, and wherein the subject has been diagnosed or is afflicted with AMD, pathologic myopia, or ocular histoplasmosis.

10084040 DE 150